Real Box Office Analysis

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Summary

Descriptive analysis and linear regression of box office data reveal opportunities to maximize success of new movies, defined as profit.

- Optimize initial spending to increase aggregate user scores and consequently, profit
- Demonstrate efficacy of advertising movie in international markets
- Determine most profitable genres to produce movies in

Overview

- Business Problem
- Data and Methods
- Budget and Advertising profitability
- Number of Markets vs Profit
- Genre profitability



Business Problem

- Increase aggregate user scores
- Maximize profit
- Reduce risk of loss
- Maximize potential audience

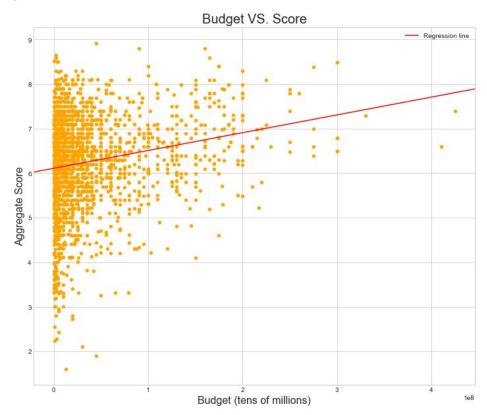


Data and Methods

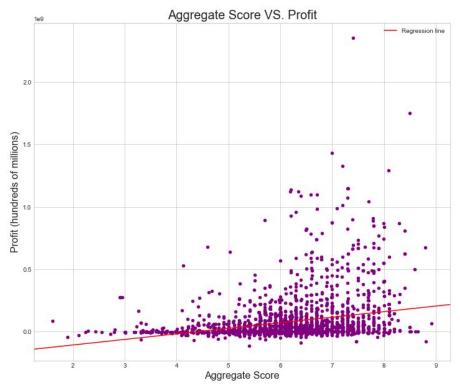
- Box office statistics from over 2000 movies
- Includes genre, number of markets, and profit of each movie
- Most important takeaway: audiences don't prefer cheap movies

Budget and Score Relationship

- Logarithmic relationship
- First \$20,000,000 of budget most effective
- Every \$1,000,000 \sim = 0.04 increase in rating



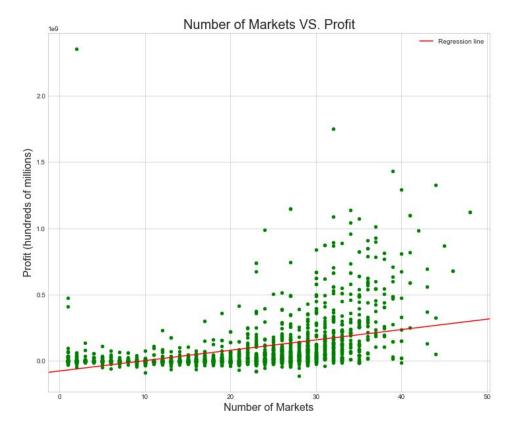
Budget and Advertising profitability



- Strong correlation between high budget and user ratings
- Exponential relationship between user ratings and profit
- 1 point of aggregate score ~= \$44,540,000 of profit

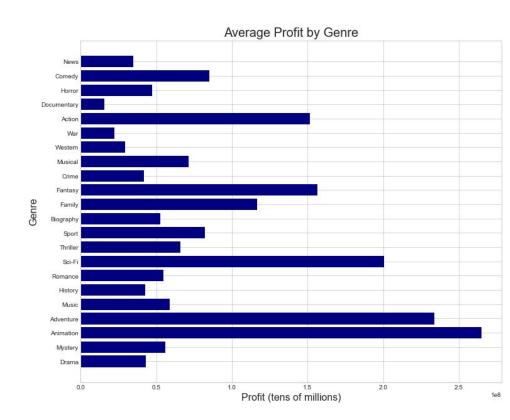
Number of Markets vs Profit

- Maximize number of markets to maximize profit
- Each additional market ~= \$7,809,000 of profit



Genre Profitability

- Animation, Action, and Sci-Fi are most profitable genres
- Animation overall most profitable
- Best production value per dollar spent
- Family friendly, existing IPs



Conclusion

- Create animated adventure movies in a sci-fi setting
- Highest feasible production budget (at least \$20,000,000 preferably)
- Release in as many foreign markets as possible
- Maximize expected profit!



Thank you!